

How valuable are systematic reviews for primary health care practitioners?

Felicity Goodyear-Smith

This issue of the *Journal of Primary Health Care* includes two systematic reviews of available literature. The first, by Arroll and Wallace, examines the effectiveness of thiazide-type (eg bendroflumethiazide/bendrofluazide) and thiazide-like (eg chlorthalidone or indapamide) diuretics on cardiovascular outcomes, and concludes that perhaps we should start using chlorthalidone as a first-line treatment for hypertension.¹ The second, by Bose and colleagues, looks at the accuracy of GPs' diagnosis of transient ischaemic attacks, and their provision of appropriate intervention. It includes recommendations to improve practice in this area.² Both these reviews provide valuable pragmatic information which can inform current practice, and hence are pertinent to be published in this *Journal*.

Systematic reviews can be conducted on any number of topics and issues. They are often the first step in a research project, to establish what is already known on a topic and identify the gaps in our knowledge. Has the proposed study already been done elsewhere? Will doing it be a duplication of effort? Not all these reviews will have the immediate practical benefit that is demonstrated in the studies mentioned above.

It is important that review of the literature is systematic, which means that there is a clear search strategy and all studies that meet the eligibility criteria are included. There is usually a protocol which includes a system for evaluating the quality of a study. If the methodology of a piece of research is fatally flawed, then it should be given little or no weight in the synthesis of the evidence. This systematic approach reduces the chance that researchers 'cherry-pick' the literature to fit some pre-existing beliefs, thereby introducing bias. The most robust reviews will follow guidelines such as PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses)³ and register their protocols in a database such as Prospero (prospective database

of systematic reviews)⁴ before commencing. However this does not completely eliminate the risk of bias, and reviews may not be value-free. Two author groups who conducted five systematic reviews over time on the same research question (three by one group, two by the other) consistently reached completely opposite conclusions. The combination of studies included varied in each case. Analysis of their methods found key studies either included or excluded influenced their recommendations in contrary directions.⁵

The gold standard is the Cochrane review, accessed through an online database. The Cochrane Collaboration is named after Archie Cochrane, considered the father of evidence-based medicine.^{6,7} These reviews are usually conducted by review teams using rigorous protocols, and may be updated several years later when more research becomes available. They are comprehensive documents sometimes 100s of pages long, although plain language summaries are also provided. Systematic reviews, including Cochrane reviews, may then be used in clinical practice guidelines that seek to inform best health care decisions.

It is recognised that practitioners have busy lives and may not have time to read an entire research paper or systematic review, let alone a Cochrane review. For this reason, the box 'what gap this fills' in the *Journal of Primary Health Care* offers a brief summary of what is already known, and what this research or review adds to our understanding. A key function of the *Journal of Primary Health Care* is the distillation of knowledge. The *Journal* received its Medline listing in 2010, a year after it was launched. This was based not only on its original research, but also on its provision of other valuable material for its primary care practitioner audience, a means of both 'moving research into practice and practice into research'. The Medline Committee recognised that the *Journal* filled an important

J PRIM HEALTH CARE
2017;9(2):97–98.
doi:10.1071/HCV9n2_ED2
Published online 30 June 2017

CORRESPONDENCE TO:
Felicity Goodyear-Smith
Head of Department, General Practice and Primary Health Care, School of Population Health, University of Auckland, New Zealand
f.goodyear-smith@auckland.ac.nz

function as a knowledge refinery about the latest evidence and best practice for time-strapped practitioners, providing practical evidence in summarised form. Regular columns included *Charms or Harms* (short systematic reviews on the potential benefits and harms of herbal and other alternative medicines), *Cochrane Corner* (a brief summary of a Cochrane systematic review), and a *String of PEARLS* (Practical Evidence About Real Life Situations) which linked distilled summaries of seven Cochrane systematic reviews on a specific topic.

While evidence can help inform best practice, sometimes there is none available or applicable for a specific patient with his or her own set of conditions, capabilities, beliefs, expectations and social circumstances. Evidence needs to be placed in context, and general practice is an art as well as a science.⁸ Quality of care lies also with the nature of the clinical relationship, with communication and with truly informed decision-making. Commentaries can include viewpoints and reflections that explore areas of uncertainty, ethics, aspects of care for which there is no one right answer, and debate can be stimulated with two professionals presenting opposing views *Back to Back*. This *Journal* has even featured a *Back to Back* on whether evidence-based guidelines improve health outcomes for general practice patients.^{9,10}

So are systematic reviews valuable resources for primary health care practitioners? Yes, if they answer a question of relevance to their practice, and

have been conducted rigorously to ensure that their recommendations are sound. In addition, succinct evidence summaries from trust-worthy sources may provide information that is either practice-confirming or practice-changing.

References

1. Arroll B, Wallace H. Should we switch from bendroflumazide to chlorthalidone as the initial treatment for hypertension? A review of the available medication. *J Prim Health Care*. 2017;9(2):105–113.
2. Bose P, Wilson A, Mistri A. Diagnosis and management of transient ischemic attacks in primary care: A systematic review. *J Prim Health Care*. 2017;9(2):114–130.
3. Moher D, Liberati A, Tetzlaff J, et al. Preferred reporting items for systematic reviews and meta-analyses: The PRISMA statement. *BMJ*. 2009;339(b2535). doi:10.1136/bmj.b2535
4. Davies S. The importance of PROSPERO to the National Institute for Health Research. *Syst Rev*. 2012;1:5.
5. Goodyear-Smith FA, van Driel ML, Arroll B, et al. Analysis of decisions made in meta-analyses of depression screening and the risk of confirmation bias: a case study. *BMC Med Res Methodol*. 2012;12:76. doi:10.1186/1471-2288-12-76
6. Stavrou A, Challoumas D, Dimitrakakis G. Archibald Cochrane (1909–1988): the father of evidence-based medicine. *Interact Cardiovasc Thorac Surg*. 2014;18(1):121–4. doi:10.1093/icvts/ivt451
7. Cochrane AL. Archie Cochrane in his own words. Selections arranged from his 1972 introduction to “Effectiveness and Efficiency: Random Reflections on the Health Services” 1972. *Control Clin Trials*. 1989;10(4):428–33. doi:10.1016/0197-2456(89)90008-1
8. Goodyear-Smith F. Practising alchemy: the transmutation of evidence into best health care. *Fam Pract*. 2011;28(2):123–7. doi:10.1093/fampra/cm106
9. Vause J. Adherence to evidence-based guidelines is the key to improved health outcomes for general practice patients: YES. *J Prim Health Care*. 2012;4(2):156–8.
10. Mangin D. Adherence to evidence-based guidelines is the key to improved health outcomes for general practice patients: NO. *J Prim Health Care*. 2012;4(2):158–60.